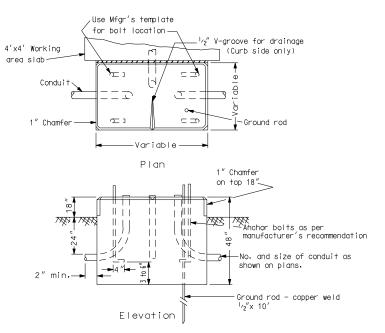
LIGHT & SIGNAL STANDARD FOUNDATION SELECTION TABLE Reinforcing Footing Depth Reinforcing Footing Depth Description Bars Bars Required 30'-35' Mounting Height 8- #5 8- #4 8- #4 36'-44' Mountina Heiaht 8- #5 45'-50' Mounting Height Combination 301 Mounting Height 0-25' Signal Mast Arm 26'-44' Signal Mast Arm 8- #6 45'-50'Signal Mast Arm Combination 40' Mounting Height 0-25' Signal Mast Arm 26'-44' Signal Mast Arm 8- #5 8- #7 11′ 12′ 45'-50' Sianal Mast Arm 8- #7 8- #8 Combination 50 Mountina Heiaht 0-25′ Signal Mast Arm 26′-44′ Signal Mast Arm 8- #5 8- #7 8- #8 12′ 13′ 45'-50' Signal Mast Arm 8- #7 Type IV Signal Standard 8- #7 10' 8- #6 9' Type I,II,III,V,VI,&VII Signal Standard

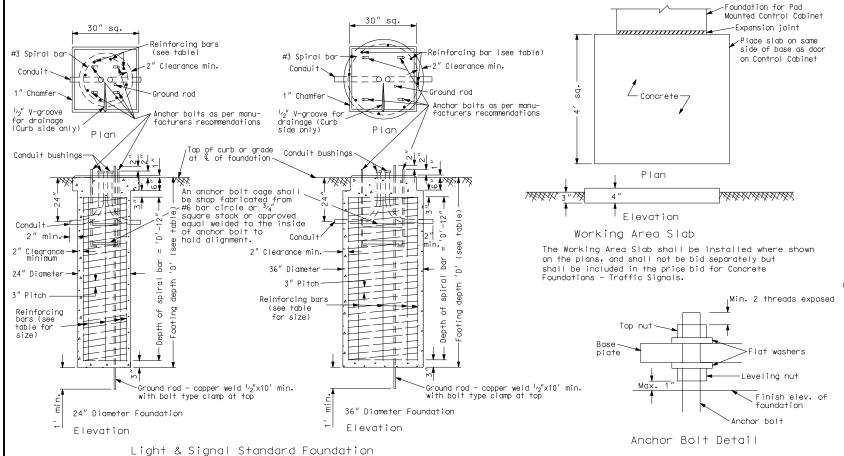
 $ext{(1)}$ No reinforcement is required if the anchor bolts extend to within 3" to 6" above the bottom of the foundation.

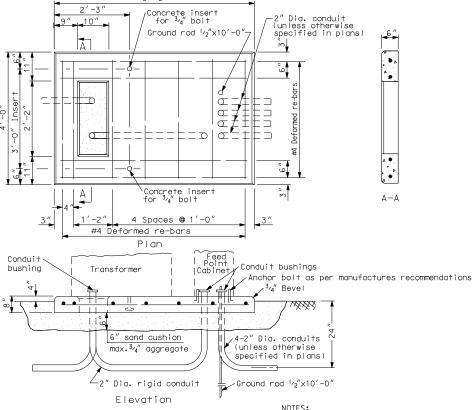
All reinforcing steel shall be Grade 40 or 60. If the contractor elects to use a 24" square foundation, the next size smaller reinforcement bars may be substituted for those shown in the table. No substitutions may be made for a 36" square foundation. #4 tie bars may be substituted for the spiral with the bars spaced at an equal space to a maximum of 12" C-C starting with first at the top of the reinforcing and the last at the bottom of the reinforcing. Round tie bars shall have a minimum of 12" lap.

CONCRETE FOUNDATIONS (TRAFFIC SIGNALS & HIGHWAY LIGHTING)



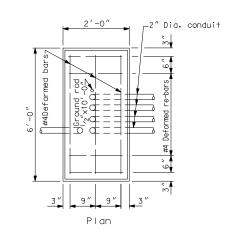
Controller Cabinet Foundation Pad Mount The Controller Cabinet Foundation shall be bid as Concrete Foundations - Traffic Signals.

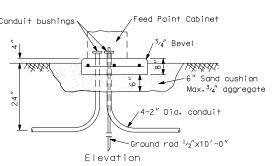




Transformer & Feed Point Cabinet Foundation Pad Mount

The Transformer & Feed Point Cabinet Foundation Pad Mount shall be bid as Concrete Foundations-Feed Point Pad - Type A.





Feed Point Cabinet Foundation Pad Mount The Feed Point Cabinet Foundation Pad Mount shall be bid as Concrete Foundations - Feed Point Pad - Type B.

LIGHT & SIGNAL STANDARD FOUNDATIONS:

See plans for conduit size, number of bends and correct positioning for each foundation.

When conduit does not continue beyond the foundation, conduit with a 105° bend and bushings on both ends may be substituted for the 90° bends shown.

See plans for correct location of foundations. The grade and exact location shall be established by the Engineer in the field. Maximum anchor bolt circle for the $24^{\prime\prime}$ foundation shall not exceed 18". Maximum anchor bolt circle for the 36" foundation shall not exceed 30".

PAD MOUNTED SIGNAL CONTROL CABINET FOUNDATION:

See plans for the number of 90° bends per foundation and correct positioning. Foundation for Pad Mounted Signal Control Cabinets shall be of sufficient size so that there is a minimum of $3^{\prime\prime}$ of clearance from the outside edge of cabinet to the outside edge of the foundation on any side. The contractor shall insure a watertight seal between the control cabinet and the foundation by caulking, except for V groove.

WORKING AREA SLAB:

The materials and preparation of this slab shall be as approved by the Engineer in the field.

TRANSFORMER & FEED POINT CABINET FOUNDATION PAD MOUNTED:

Foundation shall have a wood float finish. All conduits shown shall be installed. Conduit that is not used at this time shall be plugged.

FEED POINT CABINET FOUNDATION PAD MOUNTED:

Foundation shall have a wood float finish. All conduits shown shall be installed. Conduit that is not used at this time shall be plugged.

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION		This document was
10-1-86		originally issued
REVISIONS		and sealed by
DATE	CHANGE	MARK S GAYDOS, Registration Number PE-4518, on 12/01/04 and the original document is stored at the North Dakota Department of Transportation
06-16-94 10-10-94 06-14-95	Lt. Std. mounting Ht. Anchor boits & leveling nuts Slab revisions Footnote () revision Foundation depth General layout revision PE Stamp added	